INDEX

TESTIMONY OF

VALERIE A. LEFLER, BYRNE E. LOVELL, SIDNEY L. CONGER,
EDWARD L. BLEIFUSS, BYRON G. KEEP, JAMES C. SAPP, ROBERT J. PROCTER,
TIMOTHY D. McCOY, AND CARIE E. LEE

Witnesses for Bonneville Power Administration

SUBJECT: Risk Mitigation

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Section 1. Introduction and Purpose of Testimony

Q. Please state your names and qualifications.

A. My name is Valerie A. Lefler and my qualifications are contained in WP-02-Q-BPA-43.

A. My name is Byrne E. Lovell and my qualifications are contained in WP-02-Q-BPA-44.

A. My name is Sidney L. Conger and my qualifications are contained in WP-02-Q-BPA-14.

A. My name is Edward L. Bleifuss and my qualifications are contained in WP-02-Q-BPA-04.

A. My name is Byron G. Keep and my qualifications are contained in WP-2-Q-BPA-34.

A. My name is James C. Sapp and my qualifications are contained in WP-02-Q-BPA-62.

A. My name is Robert J. Procter and my qualifications are contained in WP-2-Q-BPA-60.

A. My name is Timothy D. McCoy and my qualifications are contained in WP-2-Q-BPA-46.

A. My name is Carie E. Lee and my qualifications are contained in WP-2-Q-BPA-70.

Q. Please state the purpose of your testimony.

A. The purpose of this testimony is to sponsor the risk mitigation tools in the 2002 Supplement to the Amended Power Rate Proposal (Supplemental Proposal). The documents covered by this testimony consist of the Risk Mitigation Chapter (Chapter 5) of the Study, WP-02-E-BPA-67, and the Cost Recovery Adjustment Clause (CRAC), Dividend Distribution Clause (DDC), and General Rate Schedule Provisions (GRSPs).

Q. How is your testimony organized?

A. Overall, our testimony addresses changes in the risk mitigation assumptions and tools used to demonstrate cost recovery in Bonneville Power Administration's (BPA) Amended Proposal. In Section 2, we address the Treasury Payment Probability (TPP) result that is reflected in this Supplemental Proposal. In Section 3, our testimony explains changes in the current forecast of 2002 starting reserves. In Section 4, we outline the changes in our proposed design of the CRAC. In Section 5, we outline changes in our proposal for the DDC, a mechanism that provides rebates to firm power customers in the event financial reserves build to levels higher than a predetermined threshold. In Section 6, we explain the potential magnitude of the CRAC percentages and DDC distributions. In Section 7, we explain changes to the risk mitigation tools used in the ToolKit modeling, and the reasons for those changes. Finally, in Section 8, the testimony addresses potential adjustments to the final Record of Decision for the Supplemental Proposal.

Section 2. Level of Treasury Payment Probability

Q. What is BPA's TPP in this supplemental rate proposal?

A. As in the Amended Proposal (*see* Burns, *et al.*, WP-02-E-BPA-62), BPA's goal continues to be an 88 percent probability of making payments to Treasury on time and in full over the five-year rate period. Because the design of Load-Based (LB) CRAC calls for adjustments based on actual levels of augmentation and actual market prices, this Supplemental Proposal includes a range of TPPs rather than a point estimate. The range of TPPs is 82.7 to 85.9 percent, assuming that BPA's total Slice sales are 2,000 average megawatt (aMW).

Q. Please explain more about why you are showing a range of TPP values instead of a single number.

A. The LB CRAC in this Proposal is a formula rather than a fixed percentage for the rate period. The formula is based on BPA's net cost of augmentation for each six-month period, which depends on the remaining augmentation need (*i.e.,* the augmentation need for which BPA does not have purchases in place) and a market-based forward indicator of future power prices. In addition, the LB CRAC percentage may be large enough to induce some customers to reduce their BPA load. To avoid basing another proposal on a single estimate of forward prices and remaining augmentation, this proposal will adjust to market prices and BPA's augmentation needs. Since we cannot predict what the forward prices and remaining augmentation needs will be, we are presenting a range of possibilities. *See* Burns, *et al.,* WP-02-E-BPA-70.

Section 3. Starting Reserves

Q. What is BPA assuming for starting reserves?

A. BPA is assuming that starting reserves for Fiscal Year (FY) 2002 for the generation function will be $309 million on an expected value basis. This is $620 million lower than the $929 million used in the Amended Proposal, and $533 million lower than the $842 million figure used in the 2002 Final Power Rate Proposal (May Proposal).

Q. What was the basis of the forecast in the Amended Proposal?

A. The forecast of starting FY 2002 reserves in the Amended Proposal was based on the forecast of ending reserves for FY 2000 from BPA's Third Quarter Review (August 2000), and a then-current estimate for FY 2001. This forecast included all 50 Water Years with an average run-off of 102.4 million acre-feet.

Q. What has changed?

A. Since the publication of the Amended Proposal, several things have happened. First, BPA has now received audited actual ending reserves for FY 2000, which were

$810 million. In addition, BPA has updates on the volume forecast for the run-off and the current January-to-July volume forecast is the fourth lowest in the 50-year record. The market prices for FY 2001 have changed and they are significantly higher than projected in the August 2000 Third Quarter Review. Taken together, this all means considerably more risk in FY 2001, more power purchase expenses, lower net revenues, and lower ending reserves. The starting reserves forecast will be updated prior to the Final Proposal. To reflect the extraordinary circumstances of FY 2001 (very low water, very high prices, much higher than expected purchase expenses for BPA), $600 million was subtracted from the net revenue estimate for FY 2001 in the ToolKit used for that year. Estimates of FY 2001 net revenue are extremely volatile, and can change greatly from week to week. This estimate will be updated in the Final Proposal.

Q. *Have there been any changes in the Non-Operating Risk Model (NORM) distribution for FY 2001?*

A. No changes have been made since the Amended Proposal, when one change was made in NORM for 2001. In the May Proposal, the FY 2001 NORM included an uncertainty for re-allocation of the Memorandum of Agreement (MOA) carry-forward, which could result in a use of cash in FY 2001. This risk has been re-assessed and changed. It no longer seems possible that a formal re-allocation of MOA carry-forward funds could occur soon enough to significantly affect 2001 cash. However, it is still possible that BPA could spend more cash in FY 2001 than is currently budgeted, so the MOA carry-forward uncertainty has been recharacterized as a possible additional expenditure rather than a possible reallocation. NORM now reflects a 50 percent probability that BPA will spend an additional $10 million; a 25 percent probability that an additional $20 million will be spent, and a 25 percent probability that an additional $30 million will be spent for fish and wildlife purposes. *See* Chapter 2 of the Study, WP-02-E-BPA-58.

The change reflected in the Amended Proposal has been retained in this Supplemental Proposal.

Section 4. Cost Recovery Adjustment Clause

A. Cost Recovery Adjustment Clause Overview

Q. Please describe the Cost Recovery Adjustment Clause.

A. BPA's May Proposal had a CRAC that was designed to trigger a temporary upward rate adjustment when BPA's accumulated net revenues (ANR) were reduced below certain threshold levels. If the audited actual accumulated net revenues (AANR) for the prior year fell below these established thresholds, a financial adjustment would be made to base rates. In the Amended Proposal, in response to the increased risks BPA is facing, BPA included a three-component CRAC: the LB CRAC, the Financial-Based CRAC (FB CRAC), and the Safety-Net CRAC (SN CRAC). The LB CRAC was intended to provide an immediate response to BPA's greatly increased load requirements. However, because the LB CRAC was held at a fairly low level, it had to be reinforced by a strong FB CRAC. The SN CRAC provided additional cost recovery protection in the event of a projected or actual Treasury deferral.

This supplemental proposal takes into account customer input suggesting that the LB CRAC should be a stronger component of the risk mitigation package. It includes a re-design of the LB CRAC to be the primary tool to recover BPA's costs of augmentation. With this change, it is not as crucial to have as robust an FB CRAC as appeared in the Amended Proposal, and the FB CRAC design reverts to a design similar to the one described in the May Proposal. *See* Burns, *et al.*, WP-02-E-BPA-70. Some corresponding adjustments to the SN CRAC have also been made.

Q. Why is BPA proposing these changes to the CRAC?

A. Input from customers and BPA's own continuing analysis indicates that, unless BPA strengthened the LB CRAC, the FB CRAC would likely trigger frequently, causing

considerable rate instability, and the SN CRAC would likely trigger very early in the rate period. Also, given the continuing high prices and market volatility, it appears that BPA may well enter the next rate period with much lower starting reserves than forecast. Enhancing the LB CRAC provides prudent protection against financial problems early in the rate period, the time that BPA is likely to be facing the most risk in terms of market aberrations.

Q. Why does the proposed CRAC have three components?

A. The increased risks facing BPA are considerable. Attempting to mitigate them with a single tool would place extreme reliance on that tool. Each of the three components is focused on a different aspect of the increased risk. The LB CRAC is geared primarily to deal with the large increase in the load BPA must serve. The FB CRAC can mitigate other risks for which the CRAC in the May Proposal was intended. The SN CRAC is focused on the risk of multiple deferrals, a risk that has increased with: (a) the increased likelihood of power purchase prices at much higher prices than originally anticipated; (b) the increased need to purchase to meet firm load; and (c) the lower TPP achieved solely through the use of the rate case risk mitigation package in the May Proposal. The two new components of the CRAC were conceived during the course of discussions with interested rate case parties.

B. Load-Based Cost Recovery Adjustment Clause

1. Background on the Load-Based Cost Recovery Adjustment Clause Rate Design

Q. Please describe the LB CRAC.

A. The LB CRAC percentage and revised rates is intended to recover BPA's augmentation costs. A set of preliminary LB CRAC percentages will be contained in the Final Record of Decision (ROD) to the Supplemental Rate Case, one for each fiscal year in the rate period. The preliminary LB CRAC percentage that would apply to a particular six-month

period will be updated before the beginning of that six-month period. This update will result in a revision to the purchaser's rate for products subject to the LB CRAC. Then, after the end of that same six-month period, BPA will determine if there was an over- or under-collection of LB CRAC revenues for that recently concluded six-month period. Any over- or under-collection will result in a credit or debit to a purchaser's bill separate from the calculation of the LB CRAC percentage and revised rates for a later six-month period.

Q. Why has BPA proposed an LB CRAC?

A. The intent of the LB CRAC is to cover the net cost of the augmentation not purchased by August 1, 2000 (Power purchased after that date is not expected to be purchased at or lower than $28.10/megawatthour (MWh)). These additional augmentation purchases are valued at the market prices.

Q How does the LB CRAC in this proposal compare to that in the Amended Proposal?

A. The Amended Proposal proposed one LB CRAC percentage which applied to each year of the rate period and was not adjusted after the final proposal. The level of the LB CRAC percentage was tempered by a relatively robust FB CRAC. This LB CRAC proposal consists of a formula that will be used to adjust the LB CRAC each six months to recover the actual costs of augmentation.

Q. How is the amount of the LB CRAC determined?

A. There are several steps. The first is to set a "base" or preliminary LB CRAC percentage and revised rates for each year of the rate period, FY 2002-2006. This will be done for BPA's Final Proposal. The amount will be based on the current forecast of forward market prices for each year, shaped, and the amount by which loads contracted for exceed BPA resources, less purchases for augmentation prior to August 1, 2000.

Q. What is the next step?

A. There will be an adjustment to the preliminary LB CRAC percentage for each six-month period of the rate period, beginning with an adjustment made in June 2001 for the six-month period beginning October 2001. These adjustments determine the percentage increase that will be applied to each customer's bill for the upcoming six-month period. This means that for each year there will be a revision to the LB CRAC made prior to each October-March period, and prior to April-September period. These revisions will be calculated at least 90 days prior to the beginning of each six-month period. They calculations will be performed using the methodology in WP-02-E-BPA-68 using the data available at the time the calculations are performed.

Q. Please provide an example to illustrate your answer to the previous question.

A. For example, the six-month periods begin on the following dates: October 1, 2001; April 1, 2002; October 1, 2002; April 1, 2003; October 1, 2003; April 1, 2004; October 1, 2004; April 1, 2005; October 1, 2005; and April 1, 2006. On or about 90 days prior to each of these dates, the LB CRAC percent and resulting adjustment to the rates for each of those upcoming six-month period will be established. This means that on or about January 1, 2003, BPA will implement the methodology in WP-02-E-BPA-69, updating the data used in the various calculations in order to establish the LB CRAC percentage and adjustment to the rates for the period April 1, 2003, through September 30, 2003.

Q. What is the next step?

A. On or about 90 days after the end of each six-month period, BPA will again implement the methodology in WP-02-E-BPA-69 to determine if there was any over- or under-collection of revenues from the LB CRAC during the most recently completed six-month period.

Q. Please provide an example of this process.

A. Referring back to an earlier answer, on or about December 31, 2003, BPA will determine the amount of LB CRAC over- or under-collection for the six-month period April 1, 2003, through September 30, 2003. This determination will use the same methodology that was used 90 days before the beginning of that period. However, at this point in time, rather than re-setting the LB CRAC percentage for that six-month period that has been completed, the revenue over- or under-collection will be determined.

Q. How does BPA propose to reflect this over- or under-collection on a purchaser's bill?

A. BPA is proposing that there be a separate line item on a purchaser's bill for any over or under collection. Then, any revenue over- or under-collection that occurs after the close of a six-month period will appear as a dollar adjustment to the bill, where the dollar amount will appear on this new line item.

Q. What is BPA's rationale for keeping the result of the calculation before the six-month period separate from the calculation after the six-month period?

A. There are several reasons for this approach. First, the results of the calculations before and after a six-month period are different. Before a six-month period BPA is setting the LB CRAC percent and resulting adjustment to the rates, where the LB CRAC will adjust the rates from the May Proposal. After the six-month period, BPA is determining the dollar credit or debit to an individual purchaser's bill. Second, BPA wants to keep the calculation before the six-month period separate from the calculations after the six-month period in order to help keep more accurate records. Third, by calculating a dollar adjustment to the bill, in the way BPA has designed the calculations, any over- or under-collection is determined using the actual revenues from individual purchases during that six-month period.

Q. What public process will BPA conduct when making these determinations?

A. At this time BPA is not proposing any public process. The Settlement Proposal contains audit provisions that appear to serve the function that would otherwise be served by conducting a public process. This issue is addressed further below.

2. Proposed Methodology

Q. Why is BPA proposing to adjust customer bill every six months?

A. If a longer period was used, the discrepancy between estimated and actual could grow quite large. Alternatively, if the length of time over which any bill adjustment took effect was smaller than six months, there is the potential for quite a large amount of administrative oversight considering the complexity of the proposed calculations. The proposal for a six-month period is a balance between these two concerns.

Q. *Why has BPA abandoned the use of $28.10/MWh in determining Slice augmentation costs?*

A. BPA has not abandoned the use of $28.10/MWh. It is still proposed to be a component of the augmentation resale revenue calculation.

Q. Why is BPA updating the augmentation amount? (See Chapter 5, Table 5.7-1, WP-02-E-BPA-67.)

A. The quantity of augmentation in the May Proposal omitted some megawatts (MW) that are a part of BPA's augmentation need. These MW are a legitimate component of the Slice share of augmentation costs and should be included in the Proposed Methodology (*see* Burns, *et al.*, WP-02-E-BPA-62). Also, there are some acquisitions that BPA has already made at an average price of $28.10/MWh that are not a part of the augmentation cost calculation being proposed in this Supplemental Proposal. In addition, in the May Proposal the augmentation quantity was a flat amount for every hour during the rate period. Here, BPA is proposing an augmentation amount that varies monthly throughout the rate period.

Q. Why would the augmentation amount vary monthly?

A. BPA's firm loads and firm Federal production are not flat across the months. In addition, the augmentation purchases already made by August 1, 2000, are not flat.

Q. How will BPA distinguish between balancing purchases and augmentation purchases in calculating the Slice purchasers' share of augmentation costs?

A. Purchases made at least 120 days before the month will be considered augmentation purchases. For purposes of this analysis, purchases less than 120 days before a month are considered balancing purchases. Balancing purchases will not be included in the augmentation cost paid by Slice purchasers.

Q. Why are the costs of meeting the augmentation amount calculated diurnally?

A. While the augmentation amount is flat for a month (but varies across months) the cost of meeting this monthly augmentation will vary by diurnal period within the month.

Q. Why has BPA proposed three different equations for calculating the diurnal cost of meeting the augmentation amount?

A. To more accurately capture augmentation costs, it is important to identify three different circumstances: (a) when the pre-purchases for augmentation just equal the augmentation amount; (b) when the pre-purchases for augmentation exceed the augmentation amount; and (c) when pre-purchases for augmentation are less than the augmentation amount. Since the augmentation cost calculation is made both before and after the six-month period, that BPA could, before a six-month period, acquire pre-purchases which are less than the augmentation amount and after the six-month period, these pre-purchases could wind up being in excess of the actual augmentation amount since load changes during the six-month period are a part of the calculations that occur after the close of that six-month period.

Q. Why is BPA proposing to use a 120-day period to define an augmentation pre-purchase and a five-day period to define an augmentation pre-purchase?

A. Slice purchasers are concerned that the price of any purchase made less than 120 days prior to the month will reflect market values based on better knowledge of the expected Federal Base System (FBS) production. This risk is has not been considered a part of the Slice product. To avoid this, a 120-day timeframe is used to determine the Slice augmentation costs. However, a shorter time period is used for determining costs of meeting augmentation need by non-Slice purchasers.

Q. Why are buydowns and option costs added to augmentation costs?

A. Buydowns are costs that are incurred as a substitute for retaining that load and having to acquire even more power as a result. Option costs are a risk management tool that are included in the Settlement Proposal.

Q. Why is BPA using $28.10/MWh as the baseline or starting point for determining the resale revenues for that portion of May Augmentation not acquired by August 1, 2000, at $28.10?

A. There is an amount of megawatts that appear in the rates in the May Proposal that BPA expected to purchase at $28.10/MWh. The resale revenue from these megawatts was essentially included in the determination of the revenue requirement in the May Proposal.

Q. Why does the amount of resale revenue subtracted from gross augmentation costs vary?

A. Since the Proposed Methodology provides for load changes to be included in the determination of augmentation requirements, costs, and revenues, it is also important to reflect any load change in the calculation of the amount of resale revenue.

Q. Please explain why the LB CRAC percentage is determined by dividing Net Augmentation Cost (NAC) by total revenues before applying the LB CRAC?

A. This results in an LB CRAC percentage that is at a level sufficient to recover NAC from expected LB CRAC revenue before application of the LB CRAC.

Q. Why are not the revised rates simply the product of the base rate from the May Proposal and the LB CRAC percentage?

A. For Slice, it is first necessary to determine the incremental amount of revenue that must be collected to cover the Slice portion of NAC. The LB CRAC percentage is used in this calculation. Then, two additional mathematical steps are required before the revised Slice rate is determined. For non-Slice, it is also necessary to first determine the amount of additional non-Slice revenue required to cover the non-Slice portion of NAC. Then, there are two more mathematical operations necessary to determine the percentage that is actually multiplied by the rates in the May Proposal. The product of the rate in the May Proposal and this percentage multiplier determines the revised rate for that particular non-Slice product.

3. Comparison between the Proposed Methodology and the Settlement Proposal

Q. Does BPA consider the Proposed Methodology to be consistent, in intent, with the approach in Section B of Exhibit A of the Settlement Proposal (Section B)?

A. Yes. Section B of the Settlement Proposal was designed to describe an augmentation cost recovery framework. As is discussed more fully later in this testimony, there were concepts that appear to need revision and more complete development before the methodology could be developed into a set of GRSPs for augmentation cost recovery. Developing a set of specific steps in a set of GRSPs requires a much greater level of overall detail than is currently reflected in Section B. BPA has attempted to develop an LB CRAC methodology which, although it differs in details from Section B, it reflects the primary intent of Section B. Thus, the intent of the LB CRAC methodology is to develop adjustments to base rates that include incremental net augmentation costs and the differences in the risks of the Slice and non-Slice products.

Q. What differences are there between the overall approach described in Section B and the Approach BPA is proposing?

A. The GRSPs being proposed for the LB CRAC in this Supplemental Proposal are intended to be faithful to the intentions and agreement of the parties to the Settlement Proposal. However, one major unresolved issue is whether to determine the LB CRAC based on dividing augmentation costs by: (a) loads; or (b) revenues. Time did not allow a resolution of this issue and BPA has developed this proposal based upon a revenue basis, but has agreed to hold further discussion on this matter in an attempt to resolve the issue.

Q. Why does BPA prefer to use revenues?

A. It is BPA's position that the LB CRAC is an adjustment to rates in order to recover sufficient revenues in order to assure that augmentation costs are covered. The problem is fundamentally one of revenues. As a result, BPA has developed an approach that is intended to determine an LB CRAC that reflects the amount of additional revenues needed as a percent of the revenues that would otherwise be collected in the absence of the LB CRAC. Then, this increment in revenues to cover augmentation costs is apportioned to individual purchasers on the basis of their individual contribution to revenues. Basically, using this method, all the calculations for the LB CRAC are in terms of dollars which translate directly into a new rate with the LB CRAC applied. However, as noted earlier, the suggestion by some of the parties that the LB CRAC be apportioned based upon loads was raised very late in the settlement discussions and BPA did not have sufficient time to explore the ramifications of such a change and still meet the schedule for this Supplemental Proposal.

Q. Setting aside this issue of using revenues versus loads in the LB CRAC calculation, what are the specific calculation difference alluded to above?

A. The following Q&A addresses this question for each separate part of Section B.

Q. Do parts 1-6 of Section B pertain solely to establishing the October 2001-March 2002 LB CRAC as is suggested at the beginning of Part B?

A. No. Parts 1-6 actually apply to the calculations that are to take place before each six-month period.

Q. Do parts 7-11 of Section B pertain solely to "Establishing the LB CRAC for Subsequent Periods?"

A. No. Items 8-11 pertain primarily to the calculations performed after the close of a six-month period.

Q. What is stated in B(1) of Section B?

A. "By June 1, 2001, BPA will estimate Forecasted Total Load it expects to serve during each month of FY 2002 under subscription contracts and other existing contracts. BPA will estimate amount of sales subject to the LB CRAC. BPA will separately identify Slice sales. Forecasted Total Load shall exclude Slice load and shall reflect any known reductions (for contract terminations, amendments, load losses, or buydowns) and reasonably predictable load reductions for BPA's full and partial service contracts."

Q. How does BPA Proposed Methodology compare to B(1) of Section B?

A. BPA is intending to estimate loads subject to the LB CRAC as a part of the calculation that occur before a six-month period. This will occur every time BPA performs these calculations to determine the LB CRAC percentage and revised rates before the six-month period. This re-estimate of loads will be used in any revision to the augmentation amount for each month in the six-month period. BPA is proposing to determine total loads as follows: firm sales under Priority Firm Power (PF), Industrial Firm Power (IP), Residential Load, and Firm Power Products and Services (FPS) rate schedules not including Slice loads + long-term sales – Long-Term purchases + system obligations – system obligations subtracted from FBS before determining 7,070 –

customer contributions to system obligations. BPA is not proposing to adjust forecasted loads for "reasonably predictable load reductions."

Q. Why is BPA proposing to not subtract out "reasonably predictable loads reductions?"

A. That is a very unclear standard. If BPA has contracted for load reduction through a buy down of load, that will be reflected in the forecast of total loads made before a six-month period. However, BPA is proposing that, after same six-month period has come to a close, and BPA is determining what over or under payment of actual LB CRAC revenues has actually taken place during the six-month period, then, actual loads subject to the LB CRAC will be used.

Q. How does BPA Proposed Methodology compare to the proposed calculation of NACs in Base rates in B(2) of Section B?

A. "BPA shall also forecast the total Expected Revenue for the first half of that year at its Base Rates (excluding any CRACs) from sales subject to the LB CRAC, including separately identifying Expected Revenue from Slice sales (assuming 1,732 aMW in the Net Cost of the Inventory Solution). BPA shall calculate the Average Base Rate by dividing this Expected Revenue by the forecasted number of MWh of sales subject to the LB CRAC. BPA shall calculate the amount of Net Augmentation Cost In Base Rates already included in Expected Revenue by dividing forecasted number of MWh of sales subject to the LB CRAC by the number of MWh of sales assumed for each six months in the May Proposal and multiplying the resulting ratio by the six-month amount of NACs already included in the base rates from the May Proposal."

Q. How does BPA Proposed Methodology compare to B(2) of Section B?

A. BPA's Proposed Methodology differs in the details from B(2) Section B. There are three separate calculations contained in B(2) and these are: (a) calculation of expected revenue; (b) an average base rate; and (c) Net Augmentation Cost In Base Rates. These will be discussed separately below.

Q How does BPA Proposed Methodology compare to the proposed calculation of Expected Revenue in B(2) of Section B?

A. Section D(5) of the GRSPs performs the calculation of expected revenues referred to in B(2). However, BPA is not proposing to separately identify expected revenues from Slice sales. Nor is BPA proposing to use 1,732 aMW for such a calculation. BPA is proposing to subtract out any Conservation & Renewable credits and Low Density Discount (LDD) credits for purposes of determining increment to rates to cover augmentation costs.

Q. Why is it important to subtract Conservation & Renewable (C&R) and LDD from revenues?

A. These are subtracted out of revenues used in some calculations in order to base these calculations on the revenues that are "realized" by BPA.

Q. Why is BPA taking this approach to calculating expected revenues from resale of augmentation?

A. The expected revenue calculation in B(2) is used in B(4) in determining the NAC. However, it is important to allow for load changes in the calculation of expected revenue from the resale of augmentation, since load changes are a part of these calculations. Allowing such load change results in a more accurate amount of augmentation cost being charged to purchasers for loads subject to the LB CRAC.

Q How does BPA Proposed Methodology compare to the proposed calculation of an average base rate in B(2) of Section B?

A. BPA's Proposed Methodology does not depend on a calculation of an average base rate. Even if BPA's approach used loads rather than revenues as the denominator in the determination of the LB CRAC, there would be no reason to calculate an average base rate. In particular, BPA would not propose to calculate this average base rate using an

approach to estimating expected revenues that fixes any numbers, as is proposed in B(2) of Section B.

Q. How does BPA's Proposed Methodology compare to the proposed calculation of NACs in Base rate calculation in the last sentence of B(2) of Section B?

A. BPA is proposing a different approach to calculating what Section B(2) refers to as "Net Augmentation Costs in Base Rates." BPA's proposed approach is contained in Section D(3)-D(4) of the GRSPs and this calculation is referred to as Monthly Augmentation Resale Revenue (MARR). In BPA's proposed approach, the amount of MARR will likely vary for each time these calculations are performed. This is the case because the amount of augmentation will vary as load varies and this holds true for both the portion of augmentation already included in rates in the May Proposal as well as the additional amount of augmentation above that amount.

Q. Why does BPA believe that its approach to calculating MARR is a preferred approach?

A. The approach proposed in B(2) of Section B does not appear to allow for changes in the resale revenue from the augmentation quantity in the revenue requirement in the May Proposal as loads change. In addition, it appears that NACs are determined by only subtracting out resale revenues on augmentation in base rates. If this reading is accurate, this would omit from this calculation resale revenues on augmentation amounts above those in the May Proposal.

Q. What does B(3) of Section B state?

A. "BPA will assume federal system output (reduced for system obligations and transmission losses) of 7,070 aMW minus Slice sales, with a monthly shape proportionate to the percentage each month's Forecasted Total Load is of the annual Forecasted Total Load. BPA will calculate its Expected Augmentation Quantity by subtracting this assumed federal system capability from the Forecasted Total Load for each such month."

Q. *How does BPA Proposed Methodology compare to B(3) of Section B?*

A. The documentation describing how BPA will determine augmentation amounts is contained in Chapter 5 of WP-02-E-BPA-69. The method to determine monthly augmentation amount will be the same each time BPA performs the calculations of augmentation costs before and after every six-month period.

Q. *What is the impact of using BPA's proposed approach to determining the augmentation amount?*

A. Since the calculations proposed in B(3) are to be performed for each six-month period, there does not appear to be any way for past acquisitions to affect the amount of system capability from which loads are subtracted. As a result, the approach contained in B(3) of Section B has the result of overstating BPA's augmentation need. BPA's proposed approach then takes augmentation purchases made during the rate period into account when determining the amount of system capability from which loads are subtracted when determining the augmentation need in subsequent six-month periods.

Q. *What does B(4) of Section B state?*

A. "BPA will calculate its Assumed Average Net Augmentation Price by computing for each month of the period the weighted average price per MWh it has paid for power to be delivered in that month. If BPA has not purchased for any month in the period as much power as its Expected Augmentation Quantity, it shall calculate the residual amount needed. For these residual amounts, BPA shall obtain Forward Price Strips during the last five business days of May and average those strips in with the average price BPA paid for its advance purchases for that month to establish the Assumed Average Augmentation Price for the first half of the contract year. BPA will subtract from this Assumed Average Augmentation Price the Average Base Rate to establish the Assumed Average Net Augmentation Price for the period."

Q. How does BPA Proposed Methodology compare to B(4) of Section B?

A. While there are some difference in the details, the two approaches are similar in intent. BPA's approach is contained in Section D of the GRSPs. First, since augmentation costs may vary diurnally, it is important to determine the diurnal costs of meeting the flat monthly augmentation amount. This diurnal calculation appears to be omitted from B(4) of Section B. BPA's Proposed Approach does not calculate a Net Augmentation Price for the month. Rather, in D(1) of the GRSPs the diurnal cost of meeting the monthly augmentation amount is calculated. Then, the diurnal costs for meeting this augmentation amount on Heavy Load Hours is added to that for Light Load Hours. The approach in B(4) of Section B omits the case where BPA has acquired more augmentation than is required to meet the augmentation amount for the month, and this scenario is covered in D(1) of the GRSPs. The approach in B(4) of Section B has BPA determining the cost of the month's acquisitions not pre-purchased using the Forward Strip in the last five days in May. BPA's approach uses a price for these same acquisitions established 120 days ahead for the Slice costs and 5 days ahead for non-Slice costs. The Approach in B(4) omits hours from the cost calculations, which is necessary when using per-MWh prices. Earlier Q&A discussed differences between Section B and the GRSPs regarding the calculation of resale revenue.

Q. What is the significance of these differences?

A. It would not be possible to take B(4) as written and write a set of GRSPs that will cover all the possible combinations of acquisition purchases relative to acquisition requirements for the month that correctly determines the gross cost of meeting the acquisition amount. The approach in B(4) appears to envision a monthly augmentation cost calculation that is not built up from its diurnal components. Earlier comments regarding the calculation of resale revenue apply here equally. Also, it appears that B(4) of Section B proposes to determine an average price of power to be delivered to BPA and to subtract from this the

Average Base Rate (ABR) from B(2) to derive a NAP. This NAP is not a reliable estimate of the per unit price of augmentation acquired during the six-month period. The calculation of ABR performed in B(2) uses base rates in the May Proposal in its derivation. Since the rates in the May Proposal contain costs unrelated to meeting the augmentation amount in the May Proposal, it is inappropriate to develop the ABR in this way and then subtract it from BPA's expected gross cost of augmentation and refer to the result as the Assumed Average Net Augmentation Price for the Period, as it is referred to in B(4).

Q. What does B(5) of Section B state?

A. **"**BPA shall multiply the Assumed Average Net Augmentation Price times the Expected Augmentation Quantity, add the payments made by BPA to any customer to buydown loads (including Conservation Augmentation), add the cost of options to hedge the cost of augmentation, and subtract the Net Augmentation Costs In Base Rates to calculate the Expected Net Additional Augmentation Cost for the period. The Expected Net Additional Augmentation Cost shall be multiplied by the ratio of the Slice portion of Expected Revenues to forecasted Expected Revenues from all sales subject to the LB CRAC to establish the Slice Share of the Expected Net Additional Augmentation Cost which shall be added to the Slicers' share of the Slice Revenue Requirement. The non-Slice Share of Expected Net Additional Augmentation Cost shall be divided by the Expected Revenue from non-Slice sales subject to the LB CRAC to establish the LB CRAC to be paid during the period by all non-Slice sales subject to the LB CRAC. This results in a single percentage to be applied to all non-Slice adjustable rates and charges (demand, energy, and load variance).

Q. How does BPA Proposed Methodology compare to B(5) of Section B?

A. BPA is proposing a somewhat different series of steps to determining NAC and the amount of additional revenue required from Slice and non-Slice to cover NAC.

Section D(2)-D(4) of the GRSPs contain the equations used to arrive at NAC and these equations are BPA's substitute for the first sentence of B(5). NAC is first divided by the sum of the revenue from both Slice and non-Slice to determine one LB CRAC percentage. The calculations used in determining this one LB CRAC percentage are presented in D(5)-D(6) and E(1) of the GRSPs. Then, in E(2) of the GRSPs, BPA determines the amount of additional revenue required from Slice and non-Slice separately. The incremental amount of revenue required from Slice to cover NAC is then added to the existing Slice rate. The incremental amount of revenue required from non-Slice is then added to the amount of non-Slice revenue required before NAC and this sum is then divided by non-Slice revenue before the NAC revenues are added and this ratio is multiplied by rates in the May Proposal to determine the adjusted rate. All these calculations subtract out C&R and LDD.

Q. What is the significance of these differences?

A. Regarding the calculation of NAC, the approach proposed in the first sentence of B(5) accurately contains buydown and option costs. It does not use the correct price to multiply by Expected Augmentation Quantity. It is not the correct price because subtracting the ABR (calculated in B(2)) from the average price of augmentation does not result in the "Average Net Augmentation Price." Also, the way that Section B proposes to calculate what is referred to as "Expected Net Additional Augmentation Costs" will not reflect the net cost of augmentation for any six-month period. BPA reaches this conclusion by combining comments made regarding the calculation in ABR in B(2), and its use in determining NAP in B(4) along with additional calculations proposed in B(5) discussed below.

In B(2), an ABR is calculated assuming loads do not change. As a result, ABR appears to be inaccurately estimated. Then, in B(4), ABR is subtracted from BPA's expected cost of augmentation to be delivered during the period and the resulting value is

referred to as the NAP. Now, in B(5), a value referred to as the Expected Net Augmentation Cost in Base Rates (from B(2)) is also subtracted from the product of the NAP and the augmentation quantity, and this result is referred to as the Expected Net Additional Augmentation Cost for the period. However, when these operations are examined in total, the following conclusions about the resulting value of Expected Net Additional Augmentation Costs are reached: (a) costs have been netted out of gross augmentation costs have been inaccurately estimated; and (b) costs associated with augmentation appear to be subtracted twice; once in the calculation of the ABR performed in B(2) and a second time in the subtraction of Net Augmentation Cost in Base rates, also established in B(2).

For non-Slice, the method to determine the amount of additional revenue required from non-Slice is not addressed in B(5). As a result, it is not possible to venture an opinion on the difference between BPA's proposed approach and that contained in B(5), on this specific issue. However, the method proposed in B(5) to determine the percent change in non-Slice rates would appear to result in an incorrect percent rate change being applied to non-Slice rates. Since the percent change is applied to rates in the May Proposal, the percent change needs to be calculated with the revenues that would be received without the LB CRAC applied appearing in the numerator along with the increment in revenues from non-Slice to cover the non-Slice share of NAC. Then, this sum is divided by revenues from non-Slice before application of the LB CRAC. This percent will then be greater than one and will result in a higher rate for non-Slice with the LB CRAC than those in the May Proposal. The calculations in B(5) could be re-designed to correct this issue. Also, it appears that a step needs to be added that would first apportion the augmentation cost between Slice and non-Slice before using the results of this apportionment in the subsequent calculations presented in B(5).

Q. What does B(6) of Section B state?

A. "As early as possible in June (and every six months thereafter for subsequent periods), BPA shall hold a publicly noticed workshop to review its preliminary calculations with customers subject to the LB CRAC and any other interested parties. BPA will make available to the parties prior to the workshop the inputs used and the results of the forecast, and will make available at the workshop(s) for questioning the BPA staff that participated in the preparation of the forecast. After considering any comments it receives and revising its calculations as it deems appropriate, BPA shall notify customers before June 30, 2001, of the LB CRAC it will apply for the first six-month period (and by the end of each December and June of the rate period for subsequent periods)."

Q. How does BPA Proposed Methodology compare to B(6) of Section B?

A. BPA is proposing to finalize the calculations performed before a six-month period on or about 90 days prior to the beginning of that six-month period. Likewise, BPA is also proposing to finalize the calculations performed after the close of the six-month period on or about 90 days after the close of that six-month period. BPA has not proposed to hold a workshop prior to the finalization of these calculations.

Q. What is BPA' s assessment of the significance of these differences?

A. The date differences do not appear substantive. BPA does desire some additional flexibility regarding when the results of the calculations must be finalized, but keeping to the spirit of the Settlement Proposal. BPA is interested in hearing parties' views about the need and substance of any workshop in light of B(12) of Section B.

Q. What does B(7) of Section B state?

A. "By December 1, 2001 (and every six months thereafter), BPA shall perform the same calculations as above to establish the LB CRAC for the next six-month period, (using Forward Price Strips averaged during the last five business days of each November and May as appropriate for the upcoming six month augmentation period), but with the Slice

and non-Slice Shares of Expected Net Additional Augmentation Cost for the upcoming period increased or decreased as follows."

Q. How does BPA Proposed Methodology compare to B(7) of Section B?

A. BPA's Proposed Methodology is substantially in agreement with the statement in B(7) that the calculations performed for the October 2001 – March 2002 period will be performed for each six-month period in the rate period.

Q. What does B(8) of Section B state?

A. "BPA shall calculate a Revised Augmentation Quantity for the most recently completed six months (only October and November 2001 in the case of the December 2001 calculation) by replacing the Forecasted Total Load used in the calculation pursuant to Section B(1)(c) above for those months with Actual Total Load under subscription contracts and other existing contracts."

Q. How does BPA's Proposed Methodology compare to B(8) of Section B?

A. BPA's Proposed Methodology proposes to recalculate the augmentation amount that was actually required for a six-month period by subtracting actual loads during the period (as discussed earlier) from the sum of: (a) fixed shape of the 7,070 – actual Slice sales; and (b) augmentation pre-purchases made to date. As an aside, the reference to Section B(1)(c) appears erroneous.

Q. What is BPA's assessment of the significance of these differences?

A. It is somewhat difficult to assess the practical significance of these differences. While BPA is proposing to not continuously re-shape the 7,070 aMW of firm Federal production as load shape changes, BPA proposes to reflect the actual shape of augmentation purchases already made in BPA's determination of the monthly amount of firm federal production available to meet loads. The end result of both approaches is that the augmentation amount and monthly shape will be influenced by both the shape of supply to meet load and the shape of the load.

Q. Why has BPA proposed to not re-shape the 7,070 as load shape changes?

A. This appears to confuse two separate issues: demand and supply. The shape of the 7,070 at the beginning of the rate period ought to be the shape that is used throughout the rate period. However, it is important to reflect, in the monthly shape of supply to meet load, the shape of augmentation that is purchased. The combination of these two steps will result in a shaped monthly supply to meet loads.

Q. What does B(9) of Section B state?

A. "BPA shall calculate the Revised Slice Share of Net Additional Augmentation Costs by: (1) replacing the Expected Augmentation Quantity with Revised Augmentation Quantity; (2) updating the Assumed Average Net Augmentation Price to include the weighted average price of any additional power BPA purchased at least 120 days before each of those months (but after calculating the Assumed Average Net Augmentation Price the preceding June or December); (3) if BPA had still not purchased all of the Revised Augmentation Quantity, continuing to value the residual amounts with the Forward Price Strips used the preceding June or December to calculate the Assumed Average Net Augmentation Price for that six-month period; (4) adding the Slice Share of any additional payments not assumed in the Slice Share of Expected Net Cost of Augmentation Cost made by BPA to any customer to buydown loads (including Conservation Augmentation), or for additional options to hedge the cost of augmentation purchases. If the Revised Slice Share of Net Additional Augmentation Costs is more than the Slice Share of Expected Net Additional Augmentation Costs that was added to the Slicers' Share of the Slice Revenue Requirement for that period, that difference shall be added to the Slice Share of Expected Net Additional Augmentation Costs for the upcoming period, and if it is less it shall be subtracted**.**"

Q. How does BPA Proposed Methodology compare to B(9) of Section B?

A. Earlier Q&A discussed the similarities and differences between the items (1) and (2). Turning to item (3), BPA is proposing that the Price applied to augmentation not acquired at least 120-days prior to each month will be updated for each month using the revised value for Price 120-days before each separate month in the six-month period. Turning to item (4), BPA's Proposed Methodology keeps calculations for the upcoming six-month period separate from calculations made after the close of the six-month period.

Q. What is BPA's assessment of the significance of any difference between B(9) and the GRSPs?

A. The one difference that appears potentially substantive is BPA's proposal to have a rolling 120-day period for both pre-purchases and the Price used to determine the cost of augmentation amounts that are not pre-purchased. BPA's proposal provides for the use of Price for each month that appears to be a more accurate Price than one that was determined approximately 360 days earlier.

Q. Why is BPA proposing something different?

A. Regarding the rolling 120-day period, it is BPA's understanding that such an approach to the calculation of augmentation cost after the close of the six-month period is what was actually agreed to by the Parties. Regarding the separation of the calculations and bill adjustments for the before-the-month calculation from those for the after-the-fact calculations for: (a) some accounting simplification; and (b) the before the fact adjustment is a revised rate, and the after-the-fact adjustment is a dollar adjustment to the bill.

Q. What does B(10) of Section B state?

A. "To calculate the Revised non-Slice Share of Net Additional Augmentation Costs, BPA shall calculate a Revised Average Net Augmentation Price for those months by: (1) updating the Assumed Average Net Augmentation Price to include the weighted

average price of any additional power BPA purchased before each of those months (but after calculating the Assumed Average Net Augmentation Price the preceding June or December); and (2) if BPA had still not purchased all of the Revised Augmentation Quantity, valuing the residual amounts by replacing the Forward Price Strips used to calculate the Assumed Average Net Augmentation Price for that six-month period, with Forward Price Strips for power to be delivered each individual month obtained (averaged) during the last five business days prior to that individual month."

Q. How does BPA Proposed Methodology compare to B(10) of Section B?

A. Earlier Q&A addressed differences between Sections B(4), B(5), and B(9) and BPA's approach to both calculating augmentation costs as well as their assignment to Slice and non-Slice purchasers. These differences and the assessment of their significance applies here equally. BPA is proposing to use a rolling five-day period for both the definition of augmentation pre-purchases and the price of monthly augmentation amounts not pre-purchased.

Q. What is the significance of these differences?

A. BPA's response to this question in the comparison between B(2), B(4), B(5), and B(9) and BPA's proposed GRSPs apply equally here.

Q. What does B(11) of Section B state?

A. "BPA shall calculate the non-Slice Share of the Revised Net Additional Augmentation Cost for those months by multiplying the Revised Augmentation Quantity times ratio of Expected Revenue from non-Slice sales subject to the LB CRAC divided by the Expected Revenue from all sales subject to the LB CRAC times the Revised Average Net Augmentation Price, and adding the non-Slice share of any additional payments not assumed in the non-Slice Share of Expected Net Cost of Augmentation Cost made by BPA: (1) to any customer to buydown loads (including Conservation Augmentation), or (2) for additional options to hedge the cost of augmentation. If the non-Slice Share of the

Revised Net Additional Augmentation Cost is greater than the non-Slice Share of the Expected Net Additional Augmentation Cost, the difference shall be added to the non-Slice Share of the Expected Net Additional Augmentation Cost for the upcoming period; and if it is less, the difference shall be subtracted."

Q. How does BPA Proposed Methodology compare to B(11) of Section B?

A. An earlier Q&A addressed differences between Section B and BPA's approach to calculating the portion of augmentation costs that is assigned to non-Slice purchasers and reliance on an average price. These differences between the approach contained in the Settlement Proposal and the proposed GRSPs, and the assessment of their significance applies here equally. BPA's Proposed Methodology keeps calculations for the upcoming six-month period separate from calculations made after the close of the six-month period.

Q. What is BPA's assessment of the significance of the difference between merging the results of the before and after calculations as opposed to keeping these calculations separate?

A. BPA does not see this as a significant difference.

Q. What does B(12) of Section B state?

A. "The determination of the Augmentation True-Up will be subject to audit by BPA's independent outside auditing firm, and the results of such audits will be available to customers. One year after the end of each of the six month periods described in this Section B, the Parties, other than BPA, will be allowed to review or audit the documentation of any augmentation power purchase made by BPA that is used either in the calculation of the Assumed Augmentation Net Cost, Revised Slice Share of Net Additional Augmentation Costs or the non-Slice Share of the Revised Net Additional Augmentation Costs. Prior to that time, the Parties, other than BPA will not have access to the terms of the purchases in order to verify the above referenced calculations. BPA will retain verifiable records necessary to facilitate such audits."

Q. How does BPA Proposed Methodology compare to B(12) of Section B?

A. BPA has proposed that the results of the audit made available to customers is an affirmative statement from the audit firm as to: (a) the validity of the calculations performed by BPA covered by the audit; and (b) any change in billing as a result of the audit.

Q. What is BPA's assessment of the significance of this difference?

A. BPA's proposed approach provides for an independent third party to verify the accuracy of the calculations included in the Proposed Methodology. As a result, BPA sees no difference in the possible outcome from any such blind audit.

Q. Does this complete BPA's comparison between Section B and the proposed GRSPs?

A. It completes BPA's comparison and assessment for the present time. BPA will continue to examine both Section B and the proposed GRSPs to determine if there are any issues remaining for discussion in this rate proceeding.

C. Financial-Based Cost Recovery Adjustment Clause

Q. Please describe any changes to the Financial-Based (FB) CRAC you are proposing.

A. BPA's May Proposal included a CRAC that was a temporary increase in rates based on ANR falling below a pre-determined threshold. In December, BPA developed a proposal with a three-tier CRAC, which included a FB CRAC similar in design to the CRAC in the May Proposal. The December design for FB CRAC had higher thresholds than the May CRAC design, and larger amounts of revenue could be collected. The FB CRAC in this Supplemental Proposal has reverted to a design very similar to the CRAC in the May Proposal. In this Proposal, the thresholds (in terms of prior year-end reserves to be converted to ANR) and caps for FYs 2003, 2004, 2005, and 2006 are the same as those proposed originally in the May Proposal. *See* Table 1 below. For FY 2002, the threshold is the same as that in BPA's May Proposal; but the revenue amount (the amount to be collected under the FB CRAC) for that year is whatever it would take to restore ANR to

the threshold amount (the ANR equivalent of $300 million in reserves) *i.e.*, the cap has been eliminated.

Table 1: FB CRAC Trigger Thresholds and Annual Caps

End of Fiscal Year	Reserves Equivalent to Threshold ($ million)	Threshold (ANR*)	Maximum Planned Recovery Amount ($ millions)
FY 2001	300	-268	N/A
FY 2002	300	-290	135
FY 2003	500	-148	150
FY 2004	500	-181	150
FY 2005	500	-181	175

*Accumulated net revenues attributable to generation function

Q. Are other changes being proposed?

A. Yes. The basis and timing of triggering, and the timing of collection, are changed. In the May Proposal, the CRAC triggered based on audited actual financial data available in January, and the CRAC revenues were to be collected over a 12-month period beginning in April. In the Amended Proposal, the FB CRAC mitigated substantially more risk, with higher thresholds and caps. With that type of design, it was important to collect the FB CRAC revenue as soon as possible, and to collect it all in the current fiscal year. Therefore, the Amended Proposal had an FB CRAC triggering based on a February forecast of the end-of-the-current-year forecast, with collection in a four-month period ending in June. In this Supplemental Proposal, the LB CRAC is much more robust, and so a short collection period for the FB CRAC is not critical. As a result, the FB CRAC is now designed so that in August of each year of FY 2001-2005, a probabilistic forecast of end-of-year ANR will be prepared based on Third Quarter Review data. This forecast will include actual net revenues, as accumulated since FY 1999, to the extent actual financial data is available. If that forecast shows end-of-year ANR below the threshold

for that year, the FB CRAC will be implemented. If the FB CRAC has been triggered, BPA would notify customers in September of the proposed percentage increase.

Q. *How does the FB CRAC work?*

A. If, for any of the years FYs 2001-2005, ANR for the end of that year are forecast to fall below the FB CRAC threshold, based on the Third Quarter Review Forecast, the FB CRAC will be implemented for the next fiscal year. The threshold is the ANR equivalent of $300 million in reserves for ending FYs 2001 and 2002 (for FB CRACs in FYs 2002 and 2003), and $500 million for ending FYs 2003-2005 (for FB CRACs in FYs 2004 through 2006). See Table 1 for the annual ANR thresholds. If the FB CRAC triggers, it results in a temporary, upward adjustment to posted power rates applicable to Subscription sales.

Q. *How are ANR determined?*

A. Net revenues for any given fiscal year are accrued revenues less accrued expenses, in accordance with Generally Accepted Accounting Principles, with the following two exceptions. First, for purposes of determining if the FB CRAC threshold has been reached, actual and forecasted expenses will include BPA expenses associated with Energy Northwest debt service as forecasted in the WP-02 Final Studies. Second, the impact of adopting Financial Accounting Standard 133, Accounting for Derivative Instruments and Hedging Activities, will not be considered in determining if the FB CRAC threshold has been reached.

Q. *What happens after it is determined that ANR is forecast to be below the threshold?*

A. BPA will determine the FB CRAC revenue amount, *i.e.*, the revenue it proposes to raise through the FB CRAC. That amount will be either the positive difference between the forecast of ANR and the threshold for the year or the cap applicable to that year, whichever is less. In FY 2002, the Revenue amount will be divided by the forecasted revenues for loads subject to FB CRAC to arrive at the FB CRAC Percentage. For

FYs 2003-2006, the FB CRAC revenue amount will be divided by the forecasted revenues for loads subject to FB CRAC, plus Slice load, to arrive at the FB CRAC percentage. Each non-Slice product's total charge for energy, demand, and load variance will be increased by this CRAC percentage amount

Q. What happens after BPA has calculated the FB CRAC Percentage?

A. BPA will hold a brief public process in which it will explain the assumptions behind the forecast of ANR and its calculation of the FB CRAC Percentage. Customers and rate case parties will have an opportunity to comment. BPA will make a final decision on the FB CRAC Percentage by the end of September. Customers' bills for power deliveries for the following October through the following September will reflect the FB CRAC increase.

Q. Is there an opportunity to make an adjustment if your forecast of ANR was significantly higher or lower than the forecast in September?

A. Yes. Once audited actual financial results are available in January of the subsequent year, BPA will compare the audited actual ANR (AANR) to the forecast used in implementing the FB CRAC. If the difference is more than $5 million, BPA will "true-up" the FB CRAC revenue amount as well as the customer percentages, based on actual results. If AANR differs from the forecasted ANR by more than the tolerance, an adjustment will be made in customer bills for the second half of the year. To make this adjustment, BPA will first determine the difference between the FB CRAC revenue amount as determined in September, and the FB CRAC revenue amount based on audited actual results. This difference is then divided by the generation revenue for loads subject to the FB CRAC as forecasted for April through December. The resulting percentage is the percentage adjustment to be made on customer bills for April through September.

Q. *What is the projected impact of the FB CRAC?*

A. The average annual expected value of revenue generated by the FB CRAC over the five-year rate period ranges from $37.6 million to $43.6 million.

Q. *Is this increase in addition to the adjustment of the LB CRAC?*

A. The calculations are independent. Both percentages will be calculated on the same revenue basis, and the percentage increases will be additive. That is, the FB CRAC percentage is not based on revenue generated by the LB CRAC, and the FB CRAC percentage will not be applied to LB CRAC payments. If the FB CRAC triggers, customers purchasing "CRAC-able" products will be responsible for paying the base rate from the May Proposal plus a percentage increase equal to the sum of the LB and FB CRAC percentage increases.

D. Safety-Net Cost Recovery Adjustment Clause

Q. *What is the intent of the Safety Net component of the CRAC?*

A. The SN CRAC is designed to trigger if BPA expects to miss its next payment to Treasury or other creditor, or has actually missed such a payment. In essence, this component of CRAC enables BPA to propose and adopt changes to FB CRAC parameters, including the amount, duration, and timing parameters, for the purpose of restoring a high probability that Treasury payments during the remainder of the rate period will be made on time, if and to the extent market and other risk factors allow.

Q. *Does SN CRAC affect the calculation of TPP in the Amended Proposal?*

A. No. As defined, TPP represents the probability that all costs in the generation function, including Treasury payments, will be recovered on time and in full during the five-year rate period. *See* ROD, WP-02-A-02, at 7.1. BPA's modeling of TPP divides possible futures into only two groups, those in which there are no missed Treasury payments and those in which there is at least one miss. By design, SN CRAC triggers only if it a

missed payment is imminent or has already occurred. Therefore, SN CRAC does not improve the calculation of TPP in this rate proposal.

Q. Under what circumstances would SN CRAC be initiated?

A. The SN CRAC process triggers if:

(1) the Administrator determines that reserves attributable to generation are declining such that, even with implementation of FB CRAC and any augmentation true-ups, there is at least a 50 percent likelihood that BPA will miss the next payment to Treasury or will miss a payment to any other creditor; or

(2) BPA has already missed a payment to Treasury or any other creditor.

Q. What actions will BPA take to implement the SN CRAC?

A. This Supplemental Proposal includes a change from the Amended Proposal. Rather than call-in for a non-7(i) public process, now a 7(i) process is called for. The process is currently envisioned to work as follows. If the SN CRAC process is triggered, BPA will send written notification of the determination to customers that purchase power under rates subject to the FB CRAC and to interested parties. The notification will include the documentation used by BPA to determine that the SN CRAC has triggered, the amount of any forecast shortfall, and the time and location of a workshop on the SN CRAC.

The purpose of the SN CRAC workshop will be to discuss with customers and interested parties the cause of shortfall, and any proposed changes to the FB CRAC that will achieve a high probability that the remainder of Treasury payments during the FY 2002-2006 rate period will be made timely. In determining which proposal to include in its initial proposal in the SN CRAC Section 7(i) proceeding, BPA will give priority to prudent cost management and other options that enhance TPP while minimizing changes to the FB CRAC.

As soon as practical after a determination that the SN CRAC has triggered, BPA will initiate an expedited hearing process to be conducted in accordance with Section 7(i)

of the Northwest Power Act. The hearing will be completed within 40 days, unless a different duration is agreed to by the parties. Upon completion of such hearing, BPA will submit documentation, including the administrative record compiled by BPA in the SN CRAC proceeding, in support of a request for review and confirmation by Federal Energy Regulatory Commission.

Section 5. Dividend Distribution Clause

Q. Is BPA proposing any changes to the DDC?

A. Yes. BPA is proposing several changes to the DDC from the May Proposal. The first change is that the DDC would not be available in the first year (2002) of the rate period. The second change is that any dividend beyond the first $15 million which will go to Conservation and Renewable purposes would all be distributed to power customers. There would be no separate public process to decide how it should be allocated. The third change is that a distribution will be automatic if ANR exceed the threshold. There will be no TPP test. Fourth, due to the automatic nature of the dividend and BPA's increased financial volatility, the thresholds are higher.

Fifth, the threshold for any fiscal year will be adjusted upward by the following:

A. In the event that there has been a power system emergency (as defined in "FCRPS Protocols for Emergency Operation In Response to Generation or Transmission Emergencies dated September 22, 2000, or amendments thereto) during the fiscal year; and BPA has agreed to provide additional funding to mitigate the impact of the emergency operations on fish and wildlife, any of the additional emergency-related funding which BPA has not spent during that fiscal year will be added to the threshold amount for that year; and/or

B. BPA fish and wildlife operation and management (O&M) ("direct program") costs previously budgeted for expenditure in that FY that were

not spent in that FY and for which a need continues, will be added to the threshold amount for that year.

Finally, the financial portion of the Exchange settlement (900 aMW) will be counted as loads and will participate in DDC distributions.

Q. What are the threshold levels?

A. The threshold now varies by year. For FY 2003, the threshold is the prior year accumulated net revenue equivalent of $1.7 billion in ending reserves; FY 2004, $1.5 billion; FYs 2005 and 2006, $1.2 billion. The calibration between reserves and ANR has been updated based on more current financial data. Expressed in terms of ANR, the DDC threshold is $1,110 million for the end of FY 2002 (*i.e.,* for possible distribution starting in FY 2003), $852 million for the end of FY 2003, $519 million for the end of FYs 2004, and $519 for the end of FY 2005. *See* Appendix 1 of Documentation, WP-0-E-BPA-69. The determination of ANR will be adjusted for the same adjustments as described in the CRAC discussion in Section 4 of this testimony, and the thresholds are subject to the adjustments described in the previous question.

Q. How often could the distributions occur, and how are they calculated?

A. Distributions could occur in all years except the first year of the five-year rate period. The maximum size of the dividend distribution is the amount by which actual ANR attributable to the generation function exceed the threshold.

Q. How would the dividends be allocated?

A. The first $15 million of any dividend is committed to customers who have been participating in the C&R Discount. Any remaining would be distributed to eligible customers based on the amount of money they have paid in power bills, excluding Slice, including CRACs, since the beginning of the rate period or the last DDC, whichever is later. The IOU financial benefit will be included, based on the number of aMW any

customer receives under the benefit times the RL rate in place at the time the benefit was provided.

Section 6. Potential Magnitude of the Cost Recovery Adjustment Clause Percentages and Dividend Distribution Clause Distributions

Q. Please quantify the potential magnitude of the LB and FB CRAC percentages and DDC distributions under this proposal.

A. BPA's response in this proposal to the recent power prices and volatility of the market is an LB CRAC which essentially trues up recovery of augmentation costs through the LB CRAC to the actual net costs of augmentation. Such an approach could have a wide range of potential rate impacts. The prospect of a high LB CRAC could cause some customers to decrease the amount of load they place on BPA, which would in turn decrease both BPA's power purchases for augmentation and the level of the LB CRAC. Because of this inter-relationship, this proposal does not include a point estimate for the LB CRAC percentage and adjustments to the rates for any year. Rather, it includes a table that includes two different assumptions for BPA's required additional augmentation purchases, approximately 2,500 aMW, and approximately 1,000 aMW (both five-year averages), and three different market price scenarios. The middle market price scenario has an average FY 2002 market price of $210/MWh; two others have average FY 2002 and 2003 prices either 50 percent higher or 33 percent lower than the middle one.

The LB CRAC percentage increases with the market price and also with the augmentation purchase need. The FY 2002 LB CRAC percentage for both Slice and non-Slice customers would be about 75 percent in a $140 market with the reduced augmentation need; it would be nearly 400 percent in a $315 market and the larger augmentation need. It is likely that the LB CRAC percent for FY 2002 will be somewhere between those two figures. The corresponding range of five-year averages of LB CRAC percentages is 26 percent to 133 percent.

The expected value of the FB CRAC for non-Slice customers is 12 percent to 16 percent for FY 2002, and 3 percent to 5 percent for the five-year average. Slice customers true-up for actual changes in expenses and are therefore not subject to the FB CRAC. These possible increases from the CRACs may be partially offset by the effect of the DDC. On a five-year average basis, the DDC could offset as much as 25 percent to 35 percent of the potential increases from the CRACs in a high market and something near 10 percent in a low market. For example, in the median market scenario with the larger augmentation amount, the five-year expected value of the FB and LB CRACs is 94 percent, when the DDC is taken into account, the net impact is 94 percent minus 15 percent equals 79 percent.

Section 7. Changes to the Risk Mitigation Tools in the ToolKit Model

Q. Why did BPA make changes to its risk mitigation modeling methodology for the Supplemental Proposal?

A. Shortly after the release of the May Proposal, BPA became aware of two major changes in its risk environment that together pushed TPP well below the minimum acceptable level of 80 percent. First, both the level of prices for electricity and the volatility of electricity prices on the West Coast rose far above historically observed levels, and revised forecasts indicated an increased risk that the actual prices would be different from the assumptions about these prices made by BPA in its modeling of risks. Second, increases in the amount of load placed on BPA necessitated a planned augmentation of the power-producing capability of the Federal system by approximately 1,500 aMW. Since virtually all of this additional load must be procured in a market characterized by high prices and high volatility, BPA, and, by extension, the Treasury, are exposed to a much higher magnitude of risk than had been previously anticipated.

Q. What sorts of changes were made?

A. Two basic classes of changes were made in risk mitigation modeling, both of which were designed to address the three-component CRAC design developed by BPA through a series of discussions with its customers and other constituents. First, the ToolKit model structure was modified in order to accommodate timing differences between alternative proposed CRAC designs. Second, a number of changes were made to the input files used by ToolKit to reflect the new CRAC design and to assess the impact of Slice.

Q. How was the ToolKit Model structure changed?

A. The major modification of the ToolKit structure that affected the results in the Amended Proposal was an alteration of the logic underlying the modeling of the CRAC designs. (The FB CRAC in the Amended Proposal is essentially a modification of the CRAC in the May Proposal). For the May Proposal, it was assumed that the CRAC trigger was the audited actual accumulated net revenue equivalent of the beginning balance of cash reserves. ToolKit determined whether or not reserves at the end of the previous year fell below a specified threshold. If so, the ToolKit then assumed that additional revenues were obtained over a 12-month period starting part way through the year due to a rate increase under the CRAC. The amount of revenue collected was equal to the difference between the threshold and ending reserves or the cap for that year, whichever was less, minus a fraction reflecting the fact that Slice customers were not subject to the CRAC. Because it was assumed that the 12-month rate increase under CRAC would not take place until the April following the end-of-year calculation in which the threshold was crossed, ToolKit divided the additional revenues equally between the two years that followed the shortfall.

For the Amended Proposal, both the calculation of the FB CRAC amount and the timing of its collection changed. FB CRAC triggered based upon a forecast of rather than actual end-of-year financial conditions. For the Supplemental Proposal, the FB CRAC

logic was changed back to triggering on end-of-the-prior-year reserve levels (technically ANR levels), but the start of the 12-month period in which the FB CRAC would apply was advance to the beginning of the fiscal year. The LB CRAC in the Amended Proposal was an adjustment applying to all five years. It was based on a price that was scaled to somewhat lower than the average market price. BPA's Supplemental Proposal includes an LB CRAC proposed by customers that is set to a combination of contracted loads and actual market prices, and is set separately for each six-month period. The ToolKit operates on an annual basis, so it was changed to use five separate annual market prices for the LB CRAC calculations. In addition, the quantity of augmentation purchases needed has been broken up into five annual numbers instead of the single five-year average used in the Amended Proposal.

Q. What changes were made to the inputs to the ToolKit Model?

A. In this Supplemental Proposal, five major changes were made to ToolKit or its input files to better reflect BPA's current outlook. These changes are described in greater detail in the Documentation for the Supplemental Proposal, WP-02-E-BPA-69.

First, starting financial reserves for the FY 2002-2006 rate period were updated based upon forecasts in BPA's Third Quarter Review for FY 2000. The current period ToolKit was recalibrated to these actuals and run for 300 iterations to estimate an expected value of starting reserves for FY 2002. This version of ToolKit used two updated input files: a one-year STREAM distribution for FY 2001 operating risk volatility that approximated the current risk environment by doubling the net revenue deviations, and a distribution of non-operating risks produced by a current rate period version of NORM. The expected value of starting reserves for FY 2002 increased from $842.3 million in the May Proposal to $929.5 million in the Amended Proposal in December. This proposal assumes $308.7 million. This is the result of subtracting $600 million from the net revenues for FY 2001 in each of the 300 games run in the

current period ToolKit model. Prior to this $600 million reduction, the ToolKit was calibrated to FY 2001 ending reserves estimates from the Third Quarter Review for 2000. Additionally, the $50 million floor on reserves, used to model a minimum amount of working capital needed by BPA, was switched off. This allowed ToolKit to produce negative cash balances for FY 2001 in some of the games. This was necessary because the potential in FY 2001 for extraordinary expenses for power purchases, due to near-record drought and record-high prices, means that BPA may need to exercise short-term cash tools during FY 2001 that would need to be repaid early in FY 2002, meaning that in effect BPA could start FY 2002 with a negative cash balance. If a floor of $50 million is placed on FY 2001 ending reserves values, the amount of additional revenue required to meet the $300 million reserves threshold in FY 2002 would be understated.

Second, the Supplemental Proposal used revised net revenue distributions developed by RiskMod for the FY 2002-2006 period. Because the percentage of system output to be purchased by Slice customers is now known, the net revenue deviations in both RiskMod and NORM were reduced by 28.29 percent to reflect the portion of the operating and non-operating risks absorbed by those customers. Further, the portion of the net revenues developed by RiskMod embody the impacts of a revised forecast of market prices, and larger system augmentation required to meet the loads placed on BPA by customers who have signed Subscription contracts. (*See* Conger, *et al*., WP-02-E-BPA-71.) The Supplemental Proposal uses the same NORM distributions used in the Amended Proposal.

Third, based upon discussions with customers, BPA modified the FB CRAC design from the one presented in December. For the Supplemental Proposal, the FB CRAC is structured and modeled in substantially the same way as in the May Proposal with two notable exceptions. First, the annual cap on new revenue collection for

FY 2002 has been removed: ToolKit now models FY 2002 FB CRAC so that it collects whatever amount of additional revenues are needed to raise reserves to the $300 million threshold value for that year, and the amount to be collected is not reduced by the fraction that Slice load makes up of the total of Slice loads and loads subject to the FB CRAC. The annual thresholds and caps for the remainder of the rate period, FY 2003-2006, remain the same. Second, the ToolKit reflects the change in the timing of the collection of FB CRAC. Collection would begin in October following an initial determination, based on forecasts, made in August after the Third Quarter Review.

Fourth, also based upon extensive discussions with customers, the LB CRAC was substantially redesigned from the on presented in the Amended Proposal. The LB CRAC is designed to cover the net cost of augmenting BPA's system to meet the additional 1,518 aMW of load placement. There are three steps involved in the determination of the LB CRAC amount. First, by June 2001, BPA will establish a preliminary LB CRAC amount for each year of the rate period, FY 2002-2006. The amount will be based on the current forecast of forward market prices for each year, shaped, and the amount by which loads contracted for exceed BPA resources, less purchases for augmentation prior to August 1, 2000. Second, the preliminary LB CRAC amount will be adjusted for each six-month period of the rate period, beginning October 2001. For each year there will be an adjustment for each October-March period, and for each April-September period made at least 90 days prior to the beginning of each six-month period. These adjustments determine the percentage increase that will be applied to each customer's bill for the six-month period. Lastly, about 90 days after the end of each six-month period, BPA will true-up the LB CRAC based on actual augmentation purchases during the period. *See* Section 5.7 of WP-02-E-BPA-67 for a detailed discussion of the mechanics of the LB CRAC and Slice adjustments. ToolKit inputs for the LB CRAC values were created from inputs and outputs from the RiskMod runs.

Finally, net revenues were adjusted downward by $56 million per year to approximate the impact of using a market price of $38/MWh to calculate the value of the Investor-Owned Utilities Residential Exchange Program Settlement instead of the $28.10/MWh used in the May Proposal less the 28.29 percent paid by Slice customers. (The Amended Proposal used $34/MWh.)

Section 8. Anticipated Adjustments to Final Rate Proposal

Q. Are there any significant changes that you may factor into the Revenue Requirements Study for final Rate Proposal?

A. Yes. We expect to update FY 2001 ending reserve estimates (including NORM probabilities for FY 2001) for the Final Rate Proposal. This could affect such items as the range and expected value of starting FY 2002 reserves, interest credit amounts, key ToolKit data assumptions, and probability results. BPA will consider an alternative to publishing a set of preliminary or "base" annual LB CRAC percentages in the Final Proposal, such as publishing the formula only. The terms and conditions of collection of FB CRAC revenue may change. If any errors are discovered in the ToolKit, we would expect to fix them, and this could change parameters of the risk mitigation package. BPA is also considering a suggestion by the customers to allocate the LB CRAC collection amount differently to Slice and non-Slice customers. We expect that we will have new RiskMod distributions which may be based on different market prices, augmentation needs, augmentation pre-purchases, etc. *See* Conger, *et al.*, WP-02-E-BAP-63.

Q. Does that conclude your testimony?

A. Yes.